

REMARKS

In the Office Communication, the Examiner has required restriction under 35 U.S.C. §121 and §372 between one of the following groups, which the Examiner has identified as distinct inventions as follows:

- Group I: Claims 1-3 and 8-10, drawn to template-fixed β -hairpin mimetic of the formula $R^1\text{-Cys-Z-Cys-R}^2$, where each R^1 and R^2 pairing is a single invention, unique from the other sequences;
- Group II: Claims 4, 5, and 11-14, drawn to a library of template-fixed β -hairpin mimetics of the formula $R^1\text{-Cys-Z-Cys-R}^2$; and
- Group III: Claims 6 and 7, drawn to a method of screening for template-fixed β -hairpin mimetics using the library of Group II against a selected target.

Moreover, the Examiner further requires the election of a single species.

Applicants provisionally elect, with traverse, to prosecute Group I, which corresponds to claims 1-3 and 8-10.

With respect to the species, Applicants provisionally elect, with traverse, the template-fixed β -hairpin mimetic of the general formula $R^1\text{-Cys-Z-Cys-R}^2$, where R^1 and R^2 include at least one Glu. Claims 1 and 2 read on the elected species.

Applicants respectfully disagree with the Examiner's allegation that the instant claims do not meet the criteria for unity of invention set forth in the PCT.

The Examiner appears to have asserted that the subject-matter of the present claims lacks a significant common structural element mediating a common activity/function. In this regard, the Examiner has alleged that "the peptides are not asserted to have the same activity/function, as the method of screening requires only 'a specific binding partner.'" (Office Communication, page 3). Also, the Examiner appears to have contended that the cysteine-enclosed peptide of 4 to 20 amino acids, *i.e.* component Z, is not sufficiently identified to result in a common structural element. Applicants respectfully disagree for the following reasons.

Claim 1 relates to a cyclic template-fixed β -hairpin mimetic with the hairpin located inside a disulfide-closed cyclic peptide, wherein the hairpin is stabilized by two cysteine-adjacent and non-cyclic di- and tripeptides of any variation of the listed amino acid motifs A, B and C.

Hence, it is evidently not the objective of the present invention to provide binding to any specific binding partner but to stabilize a *potential* binding partner featuring a specific structural motif, this being a β -hairpin structure. It follows, consequently, that claim 1 does not read on any amino acids for Z but on any amino acids mediating a hairpin motif. The presence of such a motif can be verified by known means in the art, *e.g.* as described by the examples of the patent application's specification, *i.e.*, by measuring the kinetics of disulfide bridge formation of example 2a or by measuring circular dichroism of example 2b.

Furthermore, the Examiner appears to have alleged that the skilled person would not recognize a common function/activity because of the seemingly broad variation of the cysteine-adjacent di- and tripeptide motifs.

Applicants respectfully submit that one of ordinary skill in the art very well understands that the very short, non-cyclic and cysteine-adjacent di- and tripeptides R¹ and R² can have a stabilizing effect on a β -sheet structure in their close vicinity and fixed between them and that the

effect depends on the binding compatibility of the β -sheet in the Z-region to the adjacent di- and tripeptides. At least one amino acid of the components A, B and C is selected for compatibility with amino acids typically present in β -sheets. Hence, components A, B and C are selected to provide stabilizing effects on the β -sheet in the adjacent loop.

Moreover, it is respectfully submitted that the Examiner would certainly search the class and subclass of any of Groups I-III to find a reference against the subject matter of any of the other groups. Accordingly, Applicants maintain that a co-extensive field of search seems virtually mandated and would not present an undue burden.

For the reasons set forth above, Applicants respectfully request that the requirement for restriction/election be withdrawn and consideration of all of the claims on the merits be commenced.

Claim 1 has been amended to recite "and wherein the template consisting of R^1 , R^2 and the disulfide-bridged cysteines stabilizes the antiparallel β -sheet conformation of Z." Support for the amendment to claim 1 may be found on the last paragraph on page 5 of WO 2005/047503. No new matter has been added by way of the amendments to the claims.

The Commissioner is hereby authorized to charge payment of any fees associated with this communication, or credit any overpayment, to Deposit Account No. 08-2461. Such authorization includes authorization to charge fees for extensions of time, if any, under 37 C.F.R. § 1.17 and also should be treated as a constructive petition for an extension of time in this reply or any future reply pursuant to 37 C.F.R. § 1.136.

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If there are any questions or if additional information is required, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Andrea M. Wilkovich

Registration No.: 53,773

HOFFMANN & BARON, LLP

6900 Jericho Turnpike

Syosset, New York 11791

(973) 331-1700